

Glossary

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Acre - A land area measurement based on horizontal plane; 43,560 square feet; 1/640th of a square mile; approximately 4/10ths of a hectare; if square, nearly 209 feet on a side.

Adaptive management - A continuing process of action-based planning, monitoring, researching, evaluating, and adjusting with the objective of improving implementation and achieving the goals of the selected alternative (USDA, USDI 1994a).

Alternative - One of several policies, plans, or projects proposed for making decisions (USDA, USDI 1994a).

Amphibians - Cold-blooded vertebrates, including frogs, toads, salamanders, and newts, having four limbs and glandular skin, tied to moist or aquatic habitats for all or at least part of their life cycle.

Arthropods - Invertebrates belonging to the largest animal phylum (more than 800,000 species) including crustaceans, insects, centipedes, and arachnids. Characterized by a segmented body, jointed appendages, and an exoskeleton composed of chitin (USDA, USDI 1994a).

Biological distribution - The distribution of species occurrences in suitable habitats within its geographic distribution, interpreted according to the ability of that distribution to support biological functions and species interactions.

Bryophytes - Plants of the phylum Bryophyta, including mosses, liverworts, and hornworts; characterized by the lack of true roots, stems, and leaves (USDA, USDI 1994a).

Bureau of Land Management (BLM) Administered Lands - Oregon and California Railroad lands (O&C), Public Domain (PD), Coos Bay Wagon Road (CBWR), acquired lands, and split estate (federal minerals).

Category - In the action alternatives in this SEIS, groupings of species by relative rarity, practicality of pre-disturbance surveys, and information status. Management direction is generally the same for all species within a category and differs between categories. For the No-Action Alternative, see "component."

Cavity nester - Wildlife species, most frequently birds, that require cavities (holes) in trees for nesting and reproduction (USDA, USDI 1994a).

Closely associated species - A species is designated as closely associated with a forest successional stage if the species is found to be significantly more abundant in that forest successional stage compared to the other successional stages, or if it is known to occur almost exclusively in that successional stage, or if it uses habitat components usually produced at that stage (USDA, USDI 1994a). See Appendix E of this SEIS.

Coarse woody debris - Portion of a tree that has fallen or been cut and left in the woods. Usually refers to pieces at least 20 inches in diameter (USDA, USDI 1994a).

Component - As it relates to the Survey and Manage Standards and Guidelines in the No-Action Alternative, components are the specific strategies under which species are surveyed and known sites are managed to assure species persistence. Table C-3, provided in Appendix B of this SEIS and also on pages C-49 through C-61 of the Northwest Forest Plan Record of Decision (USDA, USDI 1994b), identifies which components apply to each species covered by the Survey and Manage Standards and Guidelines. Synonymous with category.

Concern for persistence - See Chapter 2 of this SEIS.

Congressionally Reserved Areas - Areas that require Congressional enactment for their establishment, such as National Parks, Wild and Scenic Rivers, National Recreation Areas, National Monuments, and Wilderness. Also referred to as Congressional Reserves (USDA, USDI 1994a). Includes similar areas established by Executive Order (e.g. National Monuments).

Connectivity - A measure of the extent to which conditions among late-successional and old-growth forest areas provide habitat for breeding, feeding, dispersal, and movement of late-successional old-growth associated wildlife and fish species. Also see Late-Successional/Old-Growth Forest (USDA USDI 1994a).

Council on Environmental Quality (CEQ) - An advisory council to the President established by the National Environmental Policy Act of 1969. CEQ reviews federal programs for their effects on the environment, conducts environmental studies, and advises the President on environmental matters. (Abstracted from the National Environmental Policy Act of 1969 as amended.)

Cumulative effects - Impacts on the environment resulting from the incremental effect of the action when added to effects of past, present, and reasonably foreseeable future actions regardless of the agency (federal or nonfederal) or person undertaking such other actions. Cumulative effects can result from individually minor, but collectively similar, actions occurring over a period of time (USDA, USDI 1994a).

Draft Environmental Impact Statement (DEIS) - The draft statement of environmental effects, which is required for major federal actions under Section 102 of the National Environmental Policy Act, and released to the public and other agencies for comment and review.

Early-successional forest - Forest seral stages younger than mature and old-growth age classes (USDA, USDI 1994a).

Ecological amplitude - The breadth of the biological and environmental requirements of the species (such as temperature, moisture regimes, soil types, hosts, and stand ages).

Ecosystem approach - A strategy or plan to manage ecosystems to provide for all associated organisms, as opposed to a strategy or plan for managing individual species (USDA et. al 1993).

Ecosystem management - Use of an ecological approach in land management to sustain diverse, healthy, and productive ecosystems. Ecosystem management is applied at various scales to blend long-term societal and environmental values in a dynamic manner that may be adapted as more knowledge is gained through research and experience.

Effects - Effects, impacts, and consequences, as used in this environmental impact statement, are synonymous. Effects may be direct, indirect, or cumulative and may fall in one of these categories: aesthetic, historic, cultural, economic, social, health, or ecological (such as effects on natural resources and on the components, structures, and functioning of affected ecosystems) (USDA USDI 1994a).

Endemic or endemism - Unique to a specific locality or the condition of being unique to a specific locality.

Endangered Species Act (ESA) - A law passed in 1973 to conserve species of wildlife and plants determined by the Director of the U.S. Fish and Wildlife Service or the National Marine Fisheries Service to be endangered or threatened with extinction in all or a significant portion of its range. Among other measures, ESA requires all federal agencies to conserve these species and consult with the U.S. Fish and Wildlife Service or National Marine Fisheries Service on federal actions that may affect these species or their designated critical habitat.

Environmental analysis - An analysis of alternative actions and their predictable short-term and long-term environmental effects, incorporating physical, biological, economic, and social considerations (USDA, USDI 1994a).

Environmental Assessment (EA) - A systematic analysis of site-specific activities used to determine whether such activities would have a significant effect on the quality of the human environment, whether a formal environmental impact statement is required, and also to aid agency compliance with the National Environmental Policy Act when no environmental impact statement is necessary (USDA, USDI 1994a).

Environmental Impact Statement (EIS) - A statement of the environmental effects of a proposed action and alternatives to it. It is required for major federal actions under Section 102 of the National Environmental Policy Act (NEPA), and released to the public and other agencies for comment and review. It is a formal document that must follow the requirements of NEPA, the CEQ guidelines, and directives of the agency responsible for the project proposal.

Equivalent-effort surveys - Pre-disturbance surveys for species whose characteristics, such as small size or irregular fruiting, prevent it from being consistently located during site-specific surveys. See Chapter 2.

Extant - Still present in a specific locality.

Extensive surveys - Surveys intended to locate populations outside the context of individual pre-disturbance surveys. They should be designed to be conducted on a landscape level with the goal of identifying likely occupied habitat. Habitats to survey will be prioritized based on species conservation needs, as well as management needs. In some instances, surveys of reserved areas may be more important than surveys within Matrix; in other instances, the reverse may be true. Extensive surveys are considered effective if they locate at least some individuals of the species in the majority of instances when the species is expected to be present at the survey location.

Extirpation - The elimination of a species from a particular area (USDA, USDI 1994a).

Fauna - Animal life of a region or geological period (USDA, USDI 1994a).

Feasibility (of surveys) - See “Practicality (of surveys).”

Federal Land Policy and Management Act (FLPMA) - A law passed in 1976 applying to the Bureau of Land Management directing management of lands administered by that agency including the requirement to develop land use plans and prepare regulations to guide that development (USDA, USDI 1994a).

Fire management plan - A strategic plan that defines a program to manage wildland and prescribed fires and documents the Fire Management Program in the approved land use plan. The plan is supplemented by operational plans such as preparedness plans, preplanned dispatch plans, prescribed fire plans, and prevention plans (USDA, USDI 1998).

Flora - Plant life of a region or geological period (USDA, USDI 1994a).

Force account - Work done by or under the direct supervision of agency crews (as opposed to contract work).

Forest Ecosystem Management Assessment Team (FEMAT) - An interagency, interdisciplinary team of scientists, economists, and sociologists led by Dr. Jack Ward Thomas and chartered to review proposals for management of federal forests within the range of the northern spotted owl. The team produced a report assessing ten options in detail, which were used as a basis for developing the Northwest Forest Plan (also described in glossary).

Forest land - Land that is now, or is capable of becoming, at least 10 percent stocked with trees and that has not been developed for nontimber use (USDA, USDI 1994a).

Forest types - A classification of forest land based on the composition of tree species presently forming basal area stocking or crown cover of live trees (USDA, USDI 1994a).

Forest watershed - The forested drainage area contributing water, organic matter, dissolved nutrients, and sediments to a lake or stream (USDA, USDI 1994a).

Fragmentation - Process of reducing size and connectivity of stands that compose a forest (USDA, USDI 1994a).

Fungi - Saprophytic and parasitic spore-producing organisms usually classified as plants that lack chlorophyll and include molds, rusts, mildews, smuts, mushrooms, and yeasts.

Geographical distribution - The physical distribution of a species as described at multiple scales, including the overall range within a landscape of interest and the local distribution within its overall range.

Ground-disturbing activity - For No-Action Alternative, defined by USFS/BLM memo 1734-PFP (BLM-OR931) 1920 (FS 11/1/96) as “habitat-disturbing activity.” See “habitat-disturbing activity.”

Habitat - Place or environment where a plant or animal naturally or normally lives and grows.

Habitat for surveys - Habitat specific to the species being surveyed; generally described in Survey Protocols or Management Recommendations.

Habitat-disturbing activity - Activities with disturbances having a likely substantial negative impact on the species habitat, its life cycle, microclimate, or life support requirements. For additional definition of this term for the action alternatives, see Chapter 2 of this SEIS.

Hectare - Ten thousand square meters; approximately 2-1/2 acres.

Hibernacula - A case or covering protecting all or part of an animal or plant from extreme cold. A winter shelter for plants or dormant animals.

High-priority sites - A site or group of sites deemed necessary for species persistence. The high-priority sites may be identified as specific locations, sites meeting specific criteria, or as a distribution of populations or sites over a geographic area that may change over time. High-priority sites are designated through the Management Recommendations for the species. High-priority sites are generally a subset of known sites; however, in some cases, all known sites may be determined to be high-priority sites. Management of high-priority sites is necessary to ensure species persistence.

Historic distribution - The distribution of a species as determined by its habitat associations and by the frequency, magnitude, and patterns of natural and human-caused disturbance and ecological processes characteristic of the Northwest Forest Plan area before European settlement. Historical distribution should be estimated over a long-enough period of time to encompass the limits of variability resulting from disturbance and ecological processes.

Implementing Agencies - The Bureau of Land Management (BLM) and the Forest Service, which are the two agencies whose land and resource management plans incorporate the Northwest Forest Plan Standards and Guidelines.

Interagency Species Management System (ISMS) - A database system that contains information about Survey and Manage species in the Northwest Forest Plan area, including known sites, species locations, and habitats, etc. See Appendix D.

Interdisciplinary team (ID team) - A group of individuals with varying areas of specialty assembled to solve a problem or perform a task. The team is assembled out of recognition that no one scientific discipline is sufficiently broad enough to adequately analyze the problem and propose action.

Irretrievable - Applies to losses of production, harvest, or commitment of renewable natural resources. For example, some or all of the timber production from an area is irretrievably lost during the time an area is used as a winter sports site. If the use is changed, timber production can be resumed. The production lost is irretrievable, but the action is not irreversible.

Irreversible - A term that describes the loss of future options. Applies primarily to the effects, or use of nonrenewable resources, such as minerals or cultural resources, or to those factors, such as soil productivity that are renewable only over long periods of time (USDA Forest Service 1992).

Issue - A point, matter, or question of public discussion or interest to be addressed or decided through the planning process.

Key watershed - Watersheds designated as part of the Northwest Forest Plan to provide high quality habitat or serve as sources of high quality water. The system of 164 Key Watersheds serve as refugia for maintaining and recovering habitat for at-risk fish stocks. They include high quality habitat as well as degraded habitat that is high priority for restoration.

Known site - Historic and current location of a species reported by a credible source, available to field offices, and that does not require additional species verification or survey by the Agency to locate the species. Known sites includes those known prior to the signing of the Northwest Forest Plan Record of Decision (USDA, USDI 1994b), as well as sites located in the future. Known sites can be based on any documented and credible source (such as herbaria/museum records, published documents, Agency records, species expert records, and documented public information). Historic locations where it can be demonstrated that the species and its habitat no longer occur do not have to be considered known sites. A credible source is a professional or amateur person who has academic training and/or demonstrated expertise in identification of the taxon of interest sufficient for the Agency to accept the identification as correct. These can include Agency staff and private individuals.

The known site identification should be precise enough to locate the species by geographic coordinates, maps, or descriptions sufficient to design specific management actions or to be located by other individuals. Also see “site” for description of size or components.

Land management - Intentional process of planning, organizing, programming, coordinating, directing, and controlling land use actions.

Land allocation - Commitment of a given area of land or a resource to one or more specific uses (such as campgrounds or Wilderness). In the Northwest Forest Plan, one of the seven allocations of Congressionally Withdrawn Areas, Late-Successional Reserves, Adaptive Management Areas, Managed Late-Successional Areas, Administratively Withdrawn Areas, Riparian Reserves, or Matrix.

Landscape - A heterogeneous land area with interacting ecosystems repeated in similar form throughout (USDA, USDI 1994a).

Late-successional forests - Forest stands consisting of trees, structural attributes, supporting biological communities, and processes associated with old-growth and/or mature forests (USDA, USDI 1994a). Forest seral stages that include mature and old-growth age classes (USDA, USDI

1994a). Age is not necessarily a defining characteristic but has been used as a proxy or indicator in some usages. Minimum ages are typically 80 to 130 years, more or less, depending on the site quality, species, rate of stand development, and other factors.

Late-Successional Reserves (LSR) - Land allocation under the Northwest Forest Plan with the objective to protect and enhance conditions of late-successional and old-growth forest ecosystems that serve as habitat for late-successional and old-growth forest related species, including the northern spotted owl. Limited stand management is permitted, subject to review by the Regional Ecosystem Office (USDA, USDI 1994b).

Lichens - Complex thallophytic plants comprised of an alga and a fungus growing in symbiotic association on a solid surface (such as a rock).

Line officer - In the Forest Service and BLM, the individual managers in the direct chain of command. For example, in the Forest Service, the chain runs from chief/deputy chiefs, to regional forester, to forest supervisors, to district rangers, and there is only one line officer at each “office” (although two line officers may share an office while administering different geographic areas). These line officers have the decision-making authority and responsibility assigned to their administrative level; other individuals at that unit advise and work for the line officer.

Long-term soil productivity - Capability of soil to sustain inherent, natural growth potential of plants and plant communities over time.

Manage (as in manage known sites) - To maintain the habitat elements needed to provide for persistence of the species at the site. Manage may range from maintaining one or more habitat components such as down logs or canopy cover, up to complete exclusion from disturbance for many acres, and may permit loss of some individuals, area, or elements not affecting continued site occupancy.

Managed Late-Successional Areas - Land allocation under the Northwest Forest Plan; similar to Late-Successional Reserves, but identified for certain owl territories in the drier provinces where regular and frequent fire is a natural part of the ecosystem. Unmapped Managed Late-Successional Areas also result from application of some Protection Buffers (see No-Action Alternative Standards and Guidelines in Appendix B of this SEIS). Certain silvicultural treatments and fire hazard reduction treatments are allowed to help prevent large-scale disturbance such as fires of high intensity or severity, disease, and insect epidemics.

Management area - An area with similar management objectives and a common management prescription (36 CFR 219, National Forest Management Act Regulations).

Management concern - An issue, problem, or condition that influences the range of management practices identified by the Forest Service in the planning process (36 CFR 219, National Forest Management Act Regulations).

Management direction - A statement of multiple use and other goals and objectives, the associated management prescriptions, and standards and guidelines for attaining them (36 CFR 219, National Forest Management Act Regulations).

Management Recommendation - An interagency document that addresses how to manage known sites and that provide guidance to Agency efforts in conserving Survey and Manage species. They describe the habitat parameters that will provide for maintaining the taxon at that site. They may also identify high-priority sites for uncommon species or provide other information to support management direction. (See Chapter 2 for more detail.)

Management requirement - Minimum standards for resource protection, vegetation manipulation, silvicultural practices, even-aged management, riparian areas, wildlife population viability, soil and water protection, and diversity to be met in accomplishing National Forest System goals and objectives (36 CFR 219 National Forest Management Act Regulations).

Matrix - Federal lands outside of reserves, withdrawn areas, Managed Late-Successional Areas, and Adaptive Management Areas (USDA, USDI 1994a).

Mature forest - A subset of late-successional forests. Mature forests are characterized by the onset of slowed height growth, crown expansion, heavier limbs, gaps, some mortality in larger trees, and appearance of more shade-tolerant species or additional crown layers. In Douglas-fir west of the Cascades, this stage typically begins between 80 and 130 years, depending on site conditions and stand history (adapted from USDA, USDI 1994b, pp. B-2 and B-3).

Microclimate - The suite of climatic conditions measured in localized areas near the earth's surface. Microclimate variables important to habitat may include temperature, light, wind speed, and moisture.

Mitigation measures - Modifications of actions taken to: (1) avoid impacts by not taking a certain action or parts of an action; (2) minimize impacts by limiting the degree or magnitude of the action and its implementation; (3) rectify impacts by repairing, rehabilitating, or restoring the affected environment; (4) reduce or eliminate impacts over time by preservation and maintenance operations during the life of the action; or, (5) compensate for impacts by replacing or providing substitute resources or environments (USDA, USDI 1994a).

Mollusks - Invertebrate animals (such as slugs, snails, clams, or squids) that have a soft unsegmented body usually enclosed in a calcareous shell.

Monitoring - A process of collecting information to evaluate if objectives and anticipated or assumed results of a management plan are being realized or if implementation is proceeding as planned (USDA, USDI 1994a).

National Environmental Policy Act (NEPA) - An Act passed in 1969 to declare a National policy that encourages productive and enjoyable harmony between humankind and the environment, promotes efforts that prevent or eliminate damage to the environment and biosphere, stimulates the health and welfare of humanity, enriches the understanding of the ecological systems and natural resources important to the nation, and established a Council on Environmental Quality (USDA, USDI 1994a).

National Forest Management Act (NFMA) - A law passed in 1976 as an amendment to the Forest and Rangeland Renewable Resources Planning Act, requiring preparation of Forest Plans and the preparation of regulations to guide that development (USDA, USDI 1994a).

Non-vertebrate species - A species that does not have a backbone.

Northwest Forest Plan - Coordinated ecosystem management direction incorporated into land management plans for lands administered by the Bureau of Land Management and the Forest Service within the range of the northern spotted owl. In April 1993, President Clinton directed his cabinet to craft a balanced, comprehensive, and long-term policy for management of over 24 million acres of public land within the range of the northern spotted owl. A Forest Ecosystem Management Assessment Team (FEMAT) was chartered to develop a series of options. These options were modified in response to public comment and additional analysis and then analyzed in a Final Supplemental Environmental Impact Statement (USDA, USDI 1994a). A Record of Decision was signed on April 13, 1994, by the Secretaries of the Department of Agriculture and the Department of Interior to adopt *Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl* (USDA, USDI

1994b). The Record of Decision, including the *Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl* is referred to as the Northwest Forest Plan. The Northwest Forest Plan is not a “plan” in the agency planning regulations sense; the term instead refers collectively to the 1994 amendment to existing agency unit plans or to the specific standards and guidelines for late-successional species incorporated into subsequent administrative unit plans.

Old-growth associated species - Plant and animal species that exhibit a strong association with old-growth forests. See “Closely associated species” (USDA, USDI 1994a).

Old-growth forest - An ecosystem distinguished by old trees and related structural attributes. Old growth encompasses the later stages of stand development that typically differ from earlier stages in a variety of characteristics which may include tree size, accumulations of large dead woody material, number of canopy layers, species, composition, and ecosystem function. More specific parameters applicable to various species are available in the USFS, Region 6, 1993 Interim Old Growth Definitions (USDA Forest Service Region 6, 1993). The Northwest Forest Plan SEIS and FEMAT describe old-growth forest as a forest stand usually at least 180 to 220 years old with moderate-to-high canopy closure; a multi-layered, multi-species canopy dominated by large overstory trees; high incidence of large trees, some with broken tops and other indications of old and decaying wood (decadence); numerous large snags; and heavy accumulations of wood, including large logs on the ground (USDA, USDI 1994a).

Outcome - A reasoned determination of a species’ likely future population stability and distribution pattern, based on a comparison of the species’ reference distribution to current conditions and to estimated conditions projected to occur following implementation of each alternative. The four potential outcomes that are used to inform management decisions are:

- Outcome 1: Habitat (including known sites) is of sufficient quality, abundance, and distribution to allow species to stabilize in a pattern similar to reference distribution.
- Outcome 2: Habitat (including known sites) is of sufficient quality, abundance, and distribution to allow species to stabilize in a pattern altered from reference distribution with some limitations on biological functions and species interactions.
- Outcome 3: Habitat (including known sites) is insufficient to support stable populations of the species.
- Outcome 4: Information is insufficient to determine an outcome.

See Background section of Chapter 3&4 for additional detail.

PSQ - See Probable Sale Quantity.

Perennial stream - A stream that typically has running water on a year-round basis.

Persistence (as in persistence objective for a species) - As described in Chapter 2, an abbreviated expression of the species management objectives for this SEIS. Generally for vertebrates, that objective is stable, well-distributed across their range on federal lands. For non-vertebrates, it is a similar standard of stable but altered distribution pattern (when compared against the reference distribution). Use in standards and guidelines such as “..sites not needed for persistence” includes an understood “reasonable assurance of” or “to the extent practicable.”

Persistence (as in persistence at a site) - Continued occupancy by a species at a known site.

Physiographic province - A geographic area having a similar set of biophysical characteristics and processes due to effects of climate and geology that result in patterns of soils and broad-scale plant communities. Habitat patterns, wildlife distributions, and historical land use patterns may differ significantly from those of adjacent provinces (USDA, USDI 1994a) (See Figure 2-1 in this SEIS).

Planning area - All of the lands within a federal agency's management boundary addressed in land management plans (USDA, USDI 1994a).

Population viability - Probability that a population will persist for a specified period across its range despite normal fluctuations in population and environmental conditions (USDA, USDI 1994a).

Practical surveys (relative to surveys prior to habitat-disturbing activities) - Surveys are practical if characteristics of the species (such as size, regular fruiting) and identifying features result in being able to reliably locate the species, if the species is present, within one or two field seasons and with a reasonable level of effort.

Characteristics determining practicality of surveys include: individual species must be of sufficient size to be detectable; the species must be readily distinguishable in the field or with no more than simple laboratory or office examination for verification of identification; the species is recognizable, annually or predictably producing identifying structures; and the surveys must not pose a health or safety risk (see Chapter 2).

Pre-disturbance surveys - See "Surveys Prior to Habitat-Disturbing Activities."

Prescribed fire - Any fire ignited by management actions to meet specific objectives. A written, approved prescribed fire plan must exist, and NEPA requirements must be met, prior to ignition. This term replaces management ignited prescribed fire. (USDA, USDI 1998)

Prescription - Written direction for forest vegetation management, including timber harvest and regeneration activities. For fire, a document that describes the conditions (including but not limited to area, fuel moisture, and weather) under which a fire for resource benefits may be permitted to burn.

Probable sale quantity (PSQ) - Term used by the Assessment Team rather than allowable sale quantity (ASQ) to describe the harvest levels of the various alternatives that could be maintained without decline over the long term if the schedule of harvests and regeneration was followed. "Allowable" was changed to "probable" to reflect some uncertainty in calculations for the various alternatives. PSQ is otherwise comparable to ASQ. PSQ includes only scheduled or regulated yields from the Matrix and Adaptive Management Areas and does not include harvests from reserves or administratively withdrawn areas, or "other wood," or volume of cull and other products not normally part of ASQ calculations (USDA, USDI 1994a).

Project surveys - See "Surveys Prior to Habitat-Disturbing Activities."

Proposive surveys - One type of landscape-scale or strategic survey, proposive surveys are focused searches conducted where taxa experts anticipate finding the target species. They are used to find sites of the rarest species, i.e. those that may not be picked up in random plots.

Protection Buffers - Additional standards and guidelines for specific rare and locally endemic species, and other species in the upland forest matrix, from the Scientific Analysis Team Report. See Appendix B of this SEIS (USDA, USDI 1994b).

Protection Buffer Species - Species thought to be rare and locally endemic, as well as other specific species in the upland forest matrix identified by the Scientific Analysis Team and included in the standards and guidelines of the Northwest Forest Plan. They provide protection for occupied locations of certain species that might occur outside of reserves.

Province - See "Physiographic province."

Range of the Northern Spotted Owl - Area generally comprised of lands in western portions of Washington, Oregon, and northern California (see Figure 1-1) (USDA, USDI 1994a).

Rare - A species is considered to be rare when: there are a low number of extant known sites with low numbers of individuals present at each site and populations are not well-distributed within its natural range. “Low” numbers and “not well distributed” are relative terms that must be considered in the context of other criteria such as distribution of habitat, fecundity, and so forth. See complete list of criteria under “Relative Rarity” in Chapter 2.

Record (as applied in the ISMS database) - A single database entry. There may be more than one record for a single location because the location was visited multiple times, the visit record was recorded more than once by multiple observers, or voucher specimens from the location were stored in several different locations.

Record of Decision - A document separate from, but associated with, an environmental impact statement that: states the management decision, states the reason for that decision, identifies all alternatives including the environmentally preferable and selected alternatives, and also states whether all practicable measures to avoid environmental harm from the selected alternative have been adopted, and if not, why not (USDA, USDI 1994a).

Reference distribution - Historic or inferred **biological** distribution pattern of a species (limited by historic potential) that serves as a baseline to compare current and future distribution. For purposes of this analysis, the reference distribution is considered to be “well distributed.”

Refugia - Locations and habitats that support populations of organisms limited to small fragments of their previous geographic range (i.e., endemic populations) (USDA, USDI 1994a).

Regional Ecosystem Office (REO) - The office that provides staff work and support to facilitate decision making of the Regional Interagency Executive Committee (RIEC) and to prompt interagency issue resolution in support of implementing the Northwest Forest Plan Standards and Guidelines. The REO is also responsible for evaluating major modifications arising from the adaptive management process and coordinating the formulation and implementation of data standards. This office reports to the RIEC and is responsible for developing, evaluating, and resolving consistency and implementation issues with respect to specific topics under the Northwest Forest Plan (USDA, USDI 1994b).

Regional Interagency Executive Committee (RIEC) - This group consists of the Pacific Northwest federal agency heads of the Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service, National Marine Fisheries Service, Bureau of Indian Affairs, Environmental Protection Agency, U.S. Army Corps of Engineers, U.S. Geological Survey (Biological Resource Division), Natural Resources Conservation Service, and the National Park Service. The RIEC serves as the senior regional entity to assure prompt, coordinated, and successful implementation of the Northwest Forest Plan Standards and Guidelines.

Reserves - Congressionally Reserved Areas (such as Wilderness) and land allocations that were designated under the Northwest Forest Plan, including Late-Successional Reserves, Riparian Reserves, and Managed Late-Successional Areas. Reserves help to protect and enhance conditions of late-successional and old-growth forest ecosystems. Stand management actions are either prohibited or limited within these allocations. The likelihood of maintaining a connected viable late-successional ecosystem was found to be directly related to the amount of late-successional forest in reserve status.

Riparian Reserves - Areas along live and intermittent streams, wetlands, ponds, lakes, and unstable and potentially unstable areas where riparian-dependent resources receive primary emphasis. Riparian Reserves are important to the terrestrial ecosystem as well, serving, for example, as dispersal habitat for certain terrestrial species (USDA, USDI 1994b).

Scientific Analysis Team (SAT) Report - To address three court-identified defects in the *Final Environmental Impact Statement for Management for the Northern Spotted Owl in National Forests* (USDA 1992), the Forest Service established the Scientific Analysis Team, which included

some members of the 1989-1990 Interagency Scientific Committee. These experts, in turn, conferred with additional scientists and specialists in preparing a detailed technical analysis of the three defects, including one which the Courts identified as the development of a plan which they know or believe will probably cause the extirpation of other native vertebrate species in the planning area. The team published their report, entitled *Viability Assessments and Management Considerations for Species Associated With Late-Successional and Old-Growth Forests of the Pacific Northwest* in March 1993 (Thomas et al.).

Scoping - A process defined, according to the provisions of the National Environmental Policy Act, as an early and open process for determining the scope of the issues to be addressed and for identifying the significant issues related to a proposed action.

Seeps - Places where water oozes from the ground to form a pool (USDA, USDI 1994a).

Sensitive species - Those species that: (1) have appeared in the Federal Register as proposed for classification and are under consideration for official listing as endangered or threatened species; (2) are on an official state list; or, (3) are recognized by the implementing agencies as needing special management to prevent their being placed on federal or state lists (USDA, USDI 1994a).

Seral stages - The series of relatively transitory plant communities that develop during ecological succession from bare ground to the climax stage (USDA, USDI 1994a).

Silvicultural system - A planned sequence of treatments or prescriptions over the entire life of a forest stand needed to meet management objectives (USDA, USDI 1994a).

Site (as in occupied site) - The location where a specimen or population of the target species (taxonomic entity) was located, observed, or presumed to exist (occasionally used as a local option to pre-disturbance surveys for certain vertebrates) based on indicators described in the Survey Protocol or Management Recommendation. Also, the polygon described by connecting nearby or functionally contiguous detections at the same location.

Site (as used in manage known sites) - The occupied site plus any buffer needed to maintain the habitat parameters described in the Management Recommendation.

Snag - Any standing dead, partially dead, or defective (cull) tree measuring at least 10 inches in diameter at breast height and at least 6 feet in height. A hard snag is composed primarily of wood in advanced stages of decay and deterioration, generally not merchantable (USDA, USDI 1994a).

Soil productivity - Capacity or suitability of a soil to establish and grow a specified crop or plant species, primarily determined through nutrient availability (USDA, USDI 1994a).

South range (for arthropods) - The California Coast Range, the Oregon and California Klamath, and the California Cascades Physiographic Provinces (USDA, USDI 1994a, p. J-2 37).

Species - A class of individuals having some common characteristics or qualities. In this SEIS, synonymous with taxon, which may include subspecies, groups, or guilds.

Stable - A taxon that, over time, maintains population numbers, given inherent levels of population fluctuation and variability of habitats to which they are adapted. The species may become stable at a different population level than the current or (inferred) historical level.

Stand (tree stand) - An aggregation of trees occupying a specific area and sufficiently uniform in composition, age, arrangement, and condition to be distinguishable from the forest in adjoining areas (USDA, USDI 1994a).

Standards and guidelines - The rules and limits governing actions, as well as the principles specifying the environmental conditions or levels to be achieved and maintained (USDA, USDI 1994a).

Strategic surveys - Landscape-scale surveys designed to collect information about a species, including its presence and habitat. See Chapter 2.

Strategic Survey Plan - A plan showing the known strategic survey needs for all species or species groups. See Chapter 2.

Subspecies - An aggregate of phenotypically similar (alike in appearance) populations of a species generally inhabiting a geographic subdivision of the range of species and differing taxonomically (having different color or size, or differing in a set of morphological characteristics or behaviorally) (USDA, USDI 1994a).

Substrate - Any object or material on which an organism grows or is attached (USDA, USDI 1994a).

Succession - A series of dynamic changes by which one group of organisms succeeds another through stages leading to a potential natural community or climax. An example is development of a series of plant communities (called seral stages) following a major disturbance (USDA, USDI 1994a).

Supplemental Environmental Impact Statement (SEIS) - As defined by the NEPA, a supplement to an existing Environmental Impact Statement is prepared when: (1) the agency makes substantial changes to the proposed action that are relevant to environmental concerns; (2) there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts; or, (3) the agency determines that the purposes of NEPA would be furthered by doing so.

Suppression - Process of extinguishing or confining fire.

Survey and Manage - Mitigation measure adopted as a standard and guideline within the Northwest Forest Plan Record of Decision that is intended to mitigate impacts of land management efforts on those species that are closely associated with late-successional or old-growth forests whose long-term persistence is a concern. These measures apply to all land allocations and require land managers to take certain actions relative to species of plants and animals, particularly some amphibians, bryophytes, lichens, mollusks, vascular plants, fungi, and arthropods, which are rare or about which little is known. These actions include: (1) manage known sites; (2) survey prior to ground-disturbing activities; (3) conduct extensive surveys; and, (4) conduct general regional surveys (USDA, USDI 1994b).

Survey Protocol - Unless otherwise specified, Survey Protocols are for surveys prior to habitat-disturbing activities. These are interagency documents describing the survey techniques needed to have a reasonable chance of locating the species when it is present on the site, or needed to make an “equivalent-effort” of locating the species when it is present on the site. Survey Protocols also identify habitats needing surveys and may identify habitats or circumstances not needing surveys. Instructions for conducting strategic surveys may be prepared along with the Strategic Survey Plan and may be referred to as strategic survey protocols. Also see Chapter 2.

Surveys Prior to Habitat-Disturbing Activities - Surveys conducted to determine if the species is present at a site proposed for habitat-disturbing activities. Includes “practical surveys” and “equivalent-effort surveys.” See Chapter 2.

Take - Under the Endangered Species Act, “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect an animal, or to attempt to engage in any such conduct (USDA, USDI 1994a). *Harass* means an intentional or negligent act or omission which creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, and sheltering. *Harm* means an act which actually kills or injures wildlife. Such acts may include significant modification or degradation of habitat when it actually kills or injures wildlife by significantly impairing behavioral patterns including breeding, feeding, or sheltering.

Taxon - A category in the scientific classification system, such as a class, family, phylum, species, subspecies, or race.

Taxonomic entity - A unique species, subspecies, or variety.

Threatened Species - Plant or animal species likely to become endangered throughout all or a significant portion of its range within the foreseeable future. A plant or animal identified and defined in accordance with the 1973 Endangered Species Act and published in the Federal Register (USDA, USDI 1994a).

Uncertainty (as used in species outcomes) - The lack of predictability due to lack of knowledge (basis to predict an outcome) or unpredictable environmental variation and stochasticity (risk to projected outcome). Disturbance within the expected range of variability should not be considered uncertainty.

Uncommon (species) - Species that does not meet the definition for rare, but where concerns for its persistence remain. See criteria under “Relative Rarity” in Chapter 2.

Understory - The trees and other woody species growing under the canopies of larger adjacent trees and other woody growth (USDA, USDI 1994a).

Vagility - Capacity or tendency of an organism to become widely dispersed.

Vascular plants - Plants that contain conducting or vascular tissue. They include seed-bearing plants (flowering plants and trees) and spore-bearing plants (ferns, horsetails, and clubmosses).

Vertebrate species - A species that has a backbone or spinal column (includes fishes, amphibians, reptiles, birds, and mammals, all of which have a segmented bony or cartilaginous spinal column).

Viability - Ability of a wildlife or plant population to maintain sufficient size to persist over time in spite of normal fluctuations in numbers, usually expressed as a probability of maintaining a specific population for a specified period (USDA, USDI 1994a).

Viability Provision - A provision contained in the National Forest System Land and Resource Management Planning Regulation of the National Forest Management Act. This provision is found in 36 CFR 219.19 and reads as follows: “Fish and wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native vertebrate species in the planning area. For planning purposes, a viable population shall be regarded as one which has the estimated numbers and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area. In order to insure that viable populations will be maintained, habitat must be provided to support, at least, a minimum number of reproductive individuals and that habitat must be well distributed so that those individuals can interact with others in the planning area.”

Viable population - A wildlife or plant population that contains an adequate number of reproductive individuals appropriately distributed on the planning area to ensure the long-term existence of the species (USDA, USDI 1994a).

Watershed analysis - A systematic procedure for characterizing watershed and ecological processes to meet specific management and social objectives. Watershed analysis provides a basis for ecosystem management planning that is applied to watersheds of approximately 20 to 200 square miles (USDA, USDI 1994a).

Well distributed - Distribution sufficient to permit normal biological function and species interactions, considering life history characteristics of the species and the habitats for which it is specifically adapted.

Wetlands - Areas inundated by surface water or ground water with a frequency sufficient to support, and under normal circumstances do or would support, a prevalence of vegetative or aquatic life that require saturated or seasonally saturated soil conditions for growth and reproduction (Executive Order 11990). Wetlands generally include, but are not limited to, swamps, marshes, bogs, and similar areas (USDA, USDI 1994a).

Wilderness - Areas designated by Congressional action under the 1964 Wilderness Act. Wilderness is defined as undeveloped federal land retaining its primeval character and influence without permanent improvements or human habitation. Wilderness areas are protected and managed to preserve their natural conditions, which generally appear to have been affected primarily by the forces of nature with the imprint of human activity substantially unnoticeable; have outstanding opportunities for solitude or for a primitive and confined type of recreation; include at least 5,000 acres or are of sufficient size to make practical their preservation, enjoyment, and use in an unimpaired condition; and may contain features of scientific, educational, scenic, or historical value as well as ecological and geologic interest (USDA, USDI 1994a).

Wildfire - An unwanted wildland fire (USDA, USDI 1998).

Wildland fire - Any non-structure fire, other than prescribed fire, that occurs in the wildland. This term encompasses fires previously called both wildfires and prescribed natural fires (USDA, USDI 1998).

Wildland fire for resource benefits - A fire that results from natural ignition (i.e. lightning strike) and is permitted to burn because it is resulting in resource benefits, is consistent with the land and resource management plan, is consistent with the fire management plan, and is burning within prescription.

Wildland fire use - The management of naturally-ignited wildland fires to accomplish specific pre-stated resource management objectives in pre-defined geographic areas outlined in fire management plans (USDA, USDI 1998).